

Hyperspectral Image Projector with Polarization Capability, Phase I

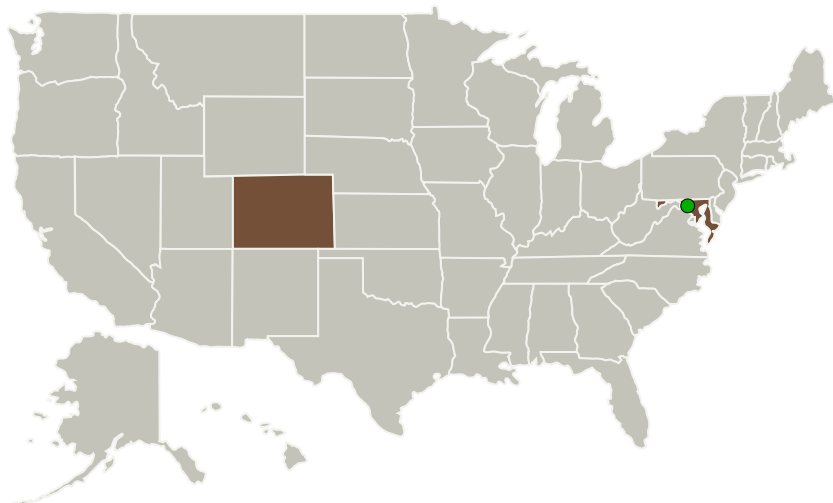
Completed Technology Project (2010 - 2010)



Project Introduction

This proposal outlines the development of a novel instrument for calibrating satellite based imaging sensors – the Polarization Hyperspectral Image Projector (PHIP). The PHIP instrument is capable of producing realistic, standards-based satellite imagery, simultaneously projecting spectral, spatial and polarization scenes. In this proposal, we offer to extend our current collaboration with NIST and add polarization capability to the HIP instrument, anticipating the need to calibrate emerging polarization-based sensors in NASA's climate monitoring satellites.

Primary U.S. Work Locations and Key Partners



Organizations Performing Work	Role	Type	Location
Boulder Nonlinear Systems, Inc.	Lead Organization	Industry	Lafayette, Colorado
● Goddard Space Flight Center(GSFC)	Supporting Organization	NASA Center	Greenbelt, Maryland

Primary U.S. Work Locations

Colorado	Maryland
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Project Transitions

 **January 2010:** Project Start

 **July 2010:** Closed out

Closeout Documentation:

- Final Summary Chart(<https://techport.nasa.gov/file/140003>)

Organizational Responsibility

Responsible Mission Directorate:

Space Technology Mission Directorate (STMD)

Lead Organization:

Boulder Nonlinear Systems, Inc.

Responsible Program:

Small Business Innovation Research/Small Business Tech Transfer

Project Management

Program Director:

Jason L Kessler

Program Manager:

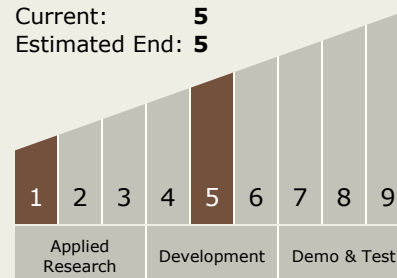
Carlos Torrez

Principal Investigator:

Teresa Ewing

Technology Maturity (TRL)

Start: **1**
Current: **5**
Estimated End: **5**



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Technology Areas

Primary:

- TX08 Sensors and Instruments
 - └ TX08.1 Remote Sensing Instruments/Sensors
 - └ TX08.1.1 Detectors and Focal Planes

Target Destinations

The Sun, Earth, The Moon, Mars, Others Inside the Solar System, Outside the Solar System